

AMENDMENT UNDER 37 CFR § 1.116
Serial No. 09/740,932

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. [Currently Amended] A method of conveying data traffic through a node of a communications network, the method comprising the steps of:
 - a) assigning a parameter respecting the data traffic in an ingress interface;
 - b) conveying the data traffic and the respective parameter to selected ones of a plurality of an egress interface-interfaces, each egress interface having a respective plurality of logical egress network ports; and
 - c) in the egress interface, forwarding the data traffic to one or more of the respective plurality of logical egress network ports based on the parameter.
2. [Original] A method as claimed in claim 1, wherein the parameter comprises any one or more of: information identifying the ingress interface; information identifying a quality of service (QoS) of data traffic received by the ingress port; information identifying a DiffServ codepoint of data traffic received by the ingress port; and information identifying a source address of data traffic received by the ingress port.
3. [Original] A method as claimed in claim 2, wherein the step of assigning a parameter comprises a step of evaluating the data traffic to derive a value of the parameter.
4. [Original] A method as claimed in claim 3, wherein the step of evaluating the data traffic comprises a step of assigning a default value of the parameter.
5. [Original] A method as claimed in claim 4, further comprising the steps of:
 - a) evaluating one or more layer-specific headers of the data traffic; and
 - b) modifying the default value of the parameter based on the evaluation result.

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6. [Original] A method as claimed in claim 5, wherein the parameter is a normalized parameter value obtained by successively evaluating each one of the one or more layer-specific headers in turn, and modifying the parameter value based on each successive evaluation result.
7. [Original] A method as claimed in claim 1, wherein the step of conveying the data traffic and the respective parameter comprises the steps of:
 - a) inserting the parameter into an intra-switch header; and
 - b) appending the intra-switch header to the data traffic.
8. [Currently Amended] A method as claimed in claim 7, wherein the step of ~~processing-forwarding~~ the data traffic comprises stripping the intra-switch header from the data traffic.
9. [Original] A method as claimed in claim 7, wherein the step of conveying the data traffic and the respective parameter further comprises a step of conveying the data traffic through a multicast-capable switch fabric.
10. [Currently Amended] A method as claimed in claim 9, wherein the data traffic and the respective parameter are replicated by the switch fabric to ~~one or more~~each selected egress interfaces of the node.
11. [Previously presented] A method as claimed in claim 1, wherein the step of forwarding the data traffic in the egress interface further comprises either one or both of: implementing a traffic policing function; and applying a predetermined policy.
12. [Original] A method as claimed in claim 11, wherein the step of implementing the traffic policing function comprises:
 - a) detecting congestion of the egress interface; and
 - b) discarding low-priority traffic such that the congestion is reduced.

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13. [Original] A method as claimed in claim 11, wherein the policy is defined in respect of the egress interface.
14. [Original] A method as claimed in claim 11, wherein the policy is defined in respect of an egress network port associated with the egress interface.
15. [Original] A method as claimed in claim 11, wherein the policy comprises any one or more of: PASS; DROP; and TRANSLATE.
16. [Original] A method as claimed in claim 15, wherein the PASS policy is adapted to cause transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
17. [Original] A method as claimed in claim 15, wherein the DROP policy is adapted to prevent transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
18. [Original] A method as claimed in claim 15, wherein the TRANSLATE policy is adapted to modify one or more of a VLAN ID of the data traffic; a QoS parameter of the data traffic; and a DiffServ codepoint of the data traffic.
19. [Original] A method as claimed in claim 18, wherein the step of applying the TRANSLATE policy comprises the steps of:
 - a) querying a translation table; and
 - b) inserting the query result into the data traffic.
20. [Original] A method as claimed in claim 19, wherein the translation table comprises, for each parameter value, information identifying any one or more of: the VLAN ID; the QoS parameter; and the DiffServ codepoint.
21. [Original] A method as claimed in claim 19, wherein the translation table is specific to the egress interface.

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22. [Previously presented] A method as claimed in claim 19, wherein the translation table is specific to a logical egress network port of the egress interface.
23. [Currently Amended] A node of a communications network, comprising:
- a) an ingress interface adapted to assign a parameter respecting data traffic received over the network;
 - b) ~~an a plurality of egress interface-interfaces~~ having a respective plurality of logical egress network ports, ~~the each~~ egress interface being adapted to forward the data traffic to one or more of its respective plurality of logical egress network ports using the parameter; and
 - c) means for conveying the data traffic and the respective parameter across the node between the ingress interface and selected ones of the plurality of egress interface interfaces.
24. [Original] A node as claimed in claim 23, wherein the parameter comprises any one or more of: information identifying the ingress interface; information identifying a quality of service (QoS) of data traffic received by the ingress interface; information identifying a DiffServ codepoint (DSCP) of data traffic received by the ingress interface; and information identifying a source address of data traffic received by the ingress interface.
25. [Original] A node as claimed in claim 24, wherein the ingress interface comprises means for evaluating the data traffic to determine a value of the parameter.
26. [Original] A node as claimed in claim 25, wherein the means for evaluating the data traffic is adapted to assign a default value of the parameter.
27. [Original] A node as claimed in claim 26, wherein the means for evaluating the data traffic further comprises:
- a) means for evaluating one or more layer-specific headers of the data traffic; and

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- b) means for modifying the default value of the parameter based on the evaluation result.
- 28. [Original] A node as claimed in claim 27, wherein the parameter is a normalized parameter value obtained by successively evaluating each one of the one or more layer-specific headers, and modifying the parameter value based on each successive evaluation result.
- 29. [Original] A node as claimed in claim 23, wherein the means for conveying the data traffic and the respective parameter comprises:
 - a) means for inserting the parameter into a header; and
 - b) means for appending the header to the data traffic.
- 30. [Original] A node as claimed in claim 29, wherein the header is stripped from the data traffic in the egress interface.
- 31. [Original] A node as claimed in claim 29, wherein the means for conveying the data traffic and the respective parameter further comprises a multicast-capable switch fabric.
- 32. [Original] A node as claimed in claim 31, wherein the multicast-capable switch network is adapted to replicate the data traffic and the respective parameter to one or more egress interfaces of the node.
- 33. [Original] A node as claimed in claim 23, wherein the egress interface comprises means for implementing a traffic policing function.
- 34. [Original] A node as claimed in claim 33, wherein the means for implementing the traffic policing function comprises:
 - a) means for detecting congestion of the egress interface; and
 - b) means for discarding low-priority traffic such that the congestion is reduced.
- 35. [Cancelled]

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36. [Original] A node as claimed in claim 23, wherein the egress interface comprises means for applying a predetermined policy respecting the data traffic.
37. [Original] A node as claimed in claim 36, wherein the policy is specific to the egress interface.
38. [Original] A node as claimed in claim 36, wherein the policy is specific to a logical egress port associated with the egress interface.
39. [Original] A node as claimed in claim 36, wherein the policy comprises any one or more of: PASS; DROP; and TRANSLATE.
40. [Original] A node as claimed in claim 39, wherein the PASS policy is adapted to cause transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
41. [Original] A node as claimed in claim 39, wherein the DROP policy is adapted to prevent transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
42. [Original] A node as claimed in claim 39, wherein the TRANSLATE policy is adapted to modify one or more of a VLAN ID of the data traffic; a QoS parameter of the data traffic; and a DiffServ codepoint of the data traffic.
43. [Original] A node as claimed in claim 42, wherein the means for applying the TRANSLATE policy comprises:
- a) means for querying a translation table; and
 - b) means for inserting the query result into the data traffic.
44. [Original] A node as claimed in claim 43, wherein the translation table comprises, for each parameter value, information identifying any one or more of: the VLAN ID; the QoS parameter; and the DiffServ codepoint.

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45. [Original] A node as claimed in claim 43, wherein the translation table is specific to the egress interface.
46. [Currently Amended] A node as claimed in claim 43, wherein the translation table is specific to a logical egress network port of the egress interface.
47. [Cancelled]
48. [Cancelled]
49. [Cancelled]
50. [Cancelled]
51. [Cancelled]
52. [Cancelled]
53. [Cancelled]
54. [Currently Amended] An egress interface of a network node, the egress interface being adapted to send outbound data traffic over a communications network, and comprising:
- a) means for receiving data traffic and a respective parameter from ~~an ingress interface~~ a multi-cast capable switch fabric of the node, the multi-cast capable switch fabric being adapted to replicate the data traffic and its respective parameter to a selected one or more of a plurality of egress interfaces of the network node;
 - b) a plurality of logical egress network ports coupled to the communications network; and
 - c) means for forwarding the data traffic to a selected one or more of the plurality of logical egress network ports using the respective parameter.

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55. [Previously presented] An egress interface as claimed in claim 54, wherein the means for forwarding the data traffic further comprises either one or both of:
- a) means for implementing a traffic policing function; and
 - b) means for applying a predetermined policy respecting the data traffic.
56. [Original] An egress interface as claimed in claim 55, wherein the means for implementing the traffic policing function comprises:
- a) means for detecting congestion of the egress interface; and
 - b) means for discarding low-priority traffic such that the congestion is reduced.
57. [Original] An egress interface as claimed in claim 55, wherein the policy is specific to the egress interface.
58. [Original] An egress interface as claimed in claim 55, wherein the policy is specific to a logical egress port associated with the egress interface.
59. [Original] An egress interface as claimed in claim 55, wherein the policy comprises any one or more of: PASS; DROP; and TRANSLATE.
60. [Original] An egress interface as claimed in claim 59, wherein the PASS policy is adapted to cause transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
61. [Original] An egress interface as claimed in claim 59, wherein the DROP policy is adapted to prevent transmission of the data traffic from the node using a selected logical egress port associated with the egress interface.
62. [Original] An egress interface as claimed in claim 59, wherein the TRANSLATE policy is adapted to modify one or more of a VLAN ID of the data traffic; a QoS parameter of the data traffic; and a DiffServ codepoint of the data traffic.
63. [Original] An egress interface as claimed in claim 62, wherein the means for applying the TRANSLATE policy comprises:

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- a) means for querying a translation table; and
 - b) means for inserting the query result into the data traffic.
64. [Original] An egress interface as claimed in claim 63, wherein the translation table comprises, for each parameter value, information identifying any one or more of: the VLAN ID; the QoS parameter; and the DiffServ codepoint.
65. [Original] An egress interface as claimed in claim 63, wherein the translation table is specific to the egress interface.
66. [Previously Presented] An egress interface as claimed in claim 63, wherein the translation table is specific to a logical egress network port of the egress interface.
67. [Cancelled]
68. [Cancelled]
69. [Cancelled]
70. [Cancelled]
71. [Cancelled]
72. [Cancelled]
73. [Cancelled]
74. [Cancelled]
75. [Cancelled]
76. [Cancelled]
77. [Cancelled]

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78. [Cancelled]

79. [Cancelled]

80. [Cancelled]

81. [Cancelled]

82. [Cancelled]

83. [Cancelled]

84. [Cancelled]

85. [Cancelled]